alternative technologies

formula Integration

User manual

Versión: 1.3 Edición: 05/02/2015

Index

Formula Integration

1. Introduction

Formula Integration is a solution that deals with Brill Formulation using SQL Server Data Bridge. It is able to show all production formulas with their ingredients and nutrients, and do operations like export files or to synchronize with another SQL database.

1.1. Functionality

- Update automatically when the program starts.
- Fast assistant to configure and start up
- Connection with databases
  - Connection with SQL Data Bridge (source database)
  - Connection with internal database
  - Connection with publication database
- List of production formulas with details of nutritional and ingredient composition.
- Option to export formulas in XF1 and XML format.
  - Exported formula mark
  - Last export
  - Export format
- Synchronization of selected formulas
  - Formula synchronized mark
  - Synchronization state
  - Last synchronization
- Plug-in to add formula exporters. Really flexible at exporting formulas from source database using custom-made exporters.
- Plug-in to add converters of formula specifications, ingredients and ingredient prices. Allows you to convert from an specific format to XF1 using custom-made converters.

2. Installation

2.1. Minimum requirements

- Microsoft Windows 7, Server 2008 or later (*)
- Microsoft SQL Server (inc Express) 2008 or later
- Microsoft NET Framework 4.0
- Windows Installer 4.5

(*) For others operating systems contacting with soporte@agrifoodat.com

2.2. New source database

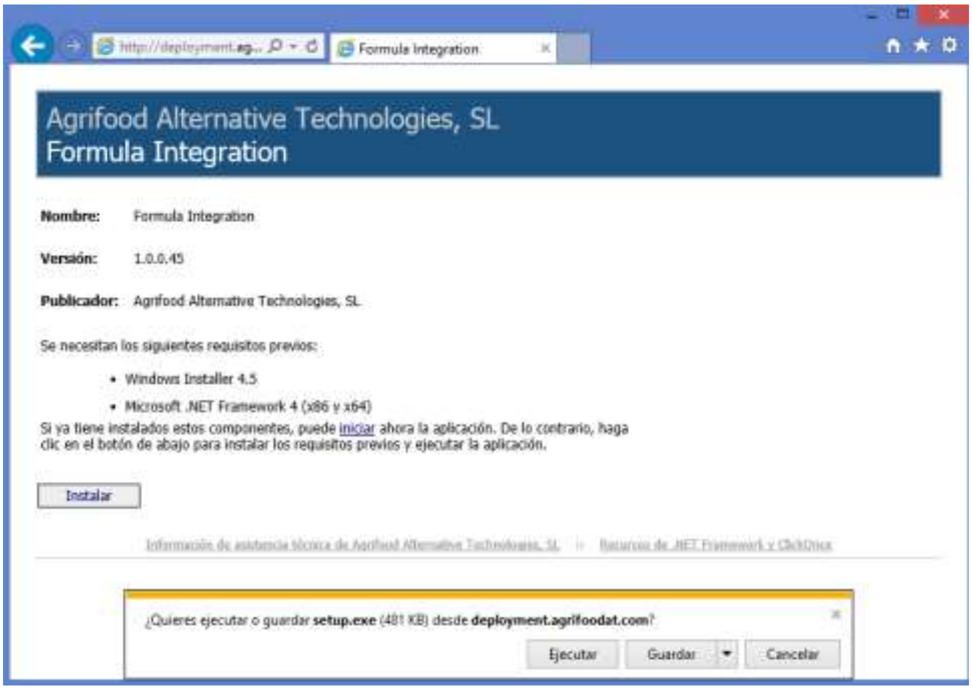
Creating and configuring source SQL database is done from Brill Formulation program, using SQL Data Bridge.

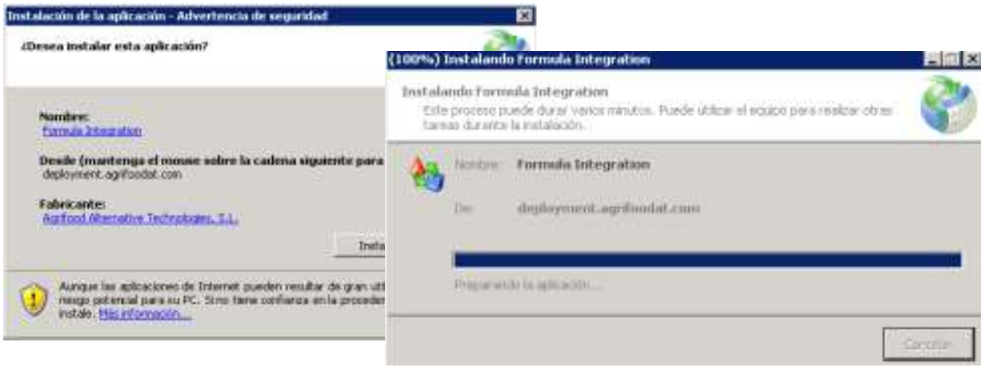
2.3. Installation by Internet

To install go to the URL below:

http://deployment.agrifoodat.com/formulaintegration

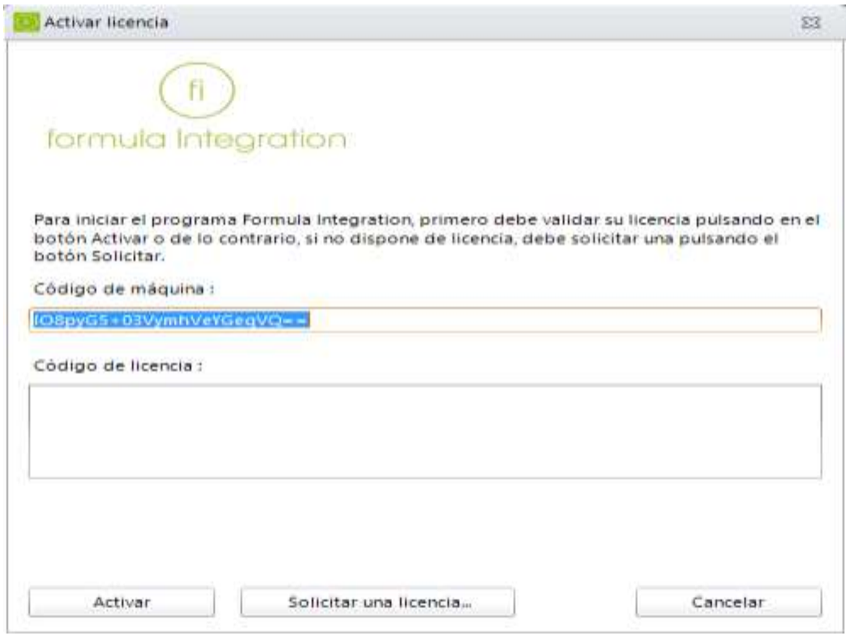
Press clic on the **Install** button, and later press **Run**.



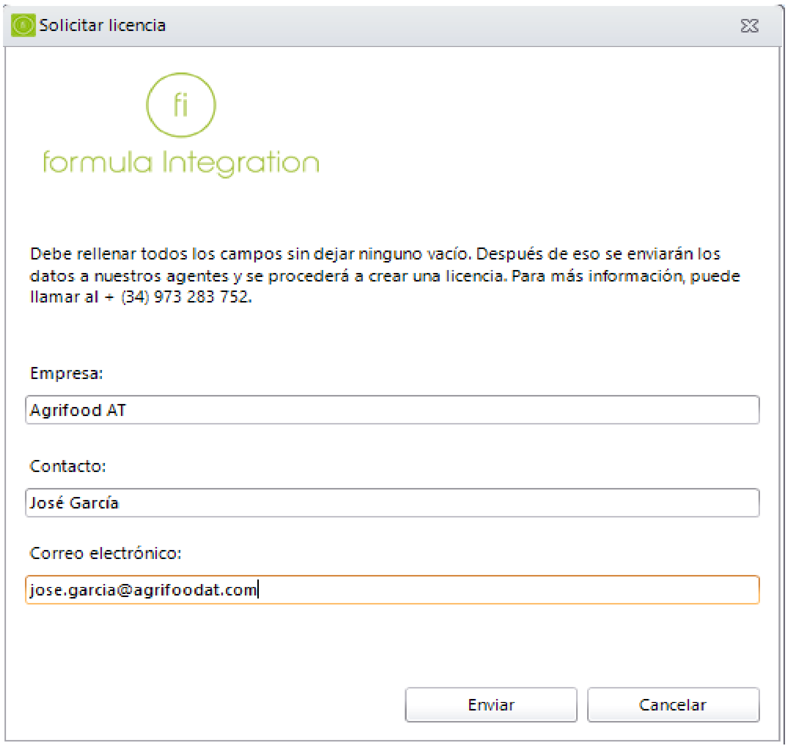


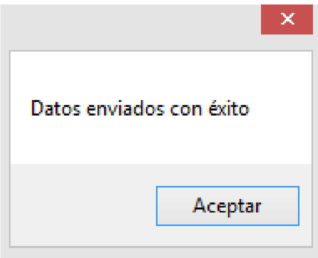
2.4. License activation

To activate the license appears a screen as the following. It's needed to have network connection. Click on the **Request License** button.



The following is complete the data of the company, contact (user) and email. Then click on **Submit**.



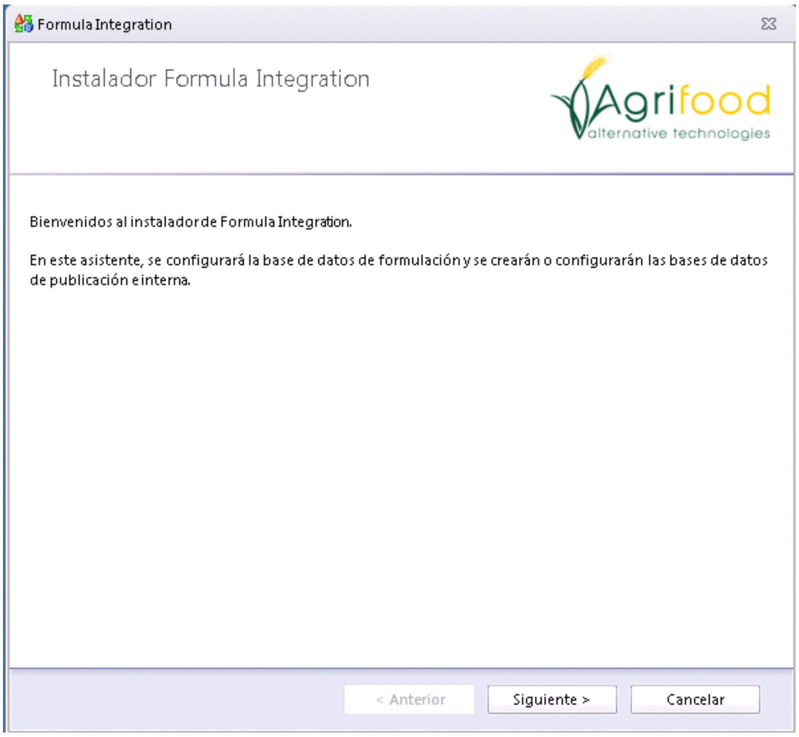


This data is used to generate the license, which will come to the email address you have indicated.

When the license code is received, must be completed on the first screen of this section and click on **Activate**.

2.5. Install and Setup Assistant

Follow next screens:



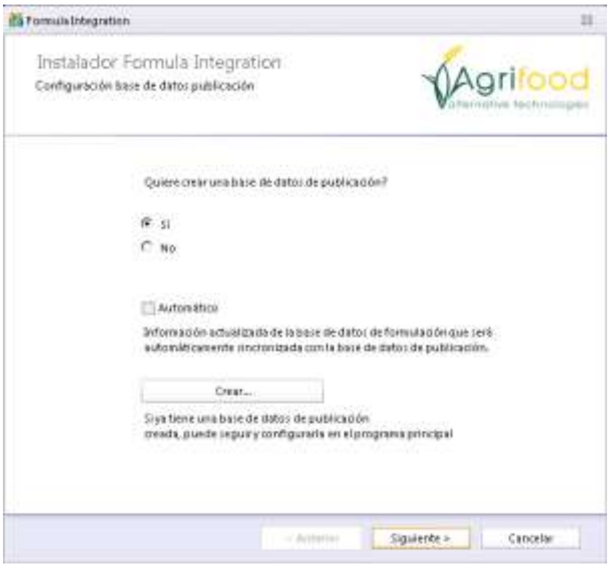
Type SQL server name and Brill SQL database name, e.g. "BrillDatabaseName" (You can follow step 2.2: New source database). Press SSPI mark for windows authentication. Click on **Next**



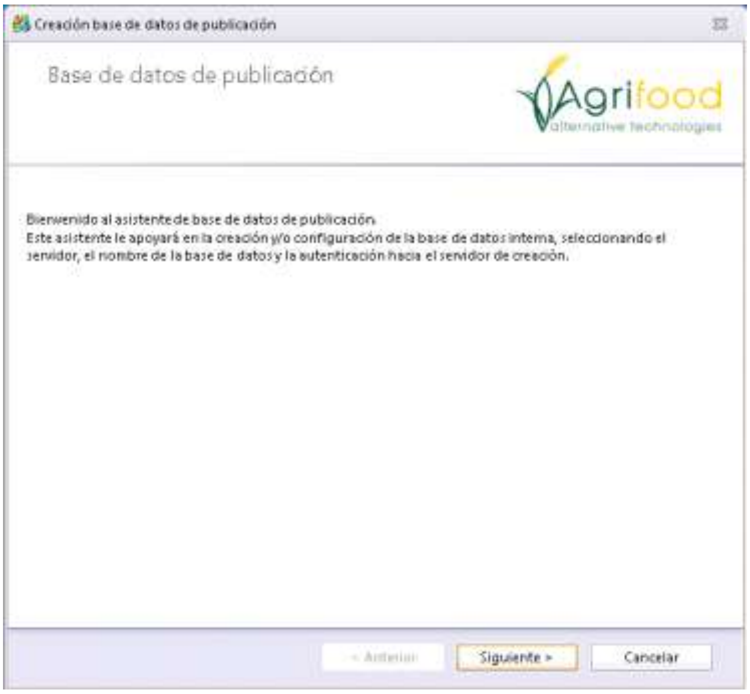
The program will configure the internal database. If the internal database doesn't exist, the program will create it with the name specified, e.g. "BrillDatabaseName_INT".



Third database is the publication database.

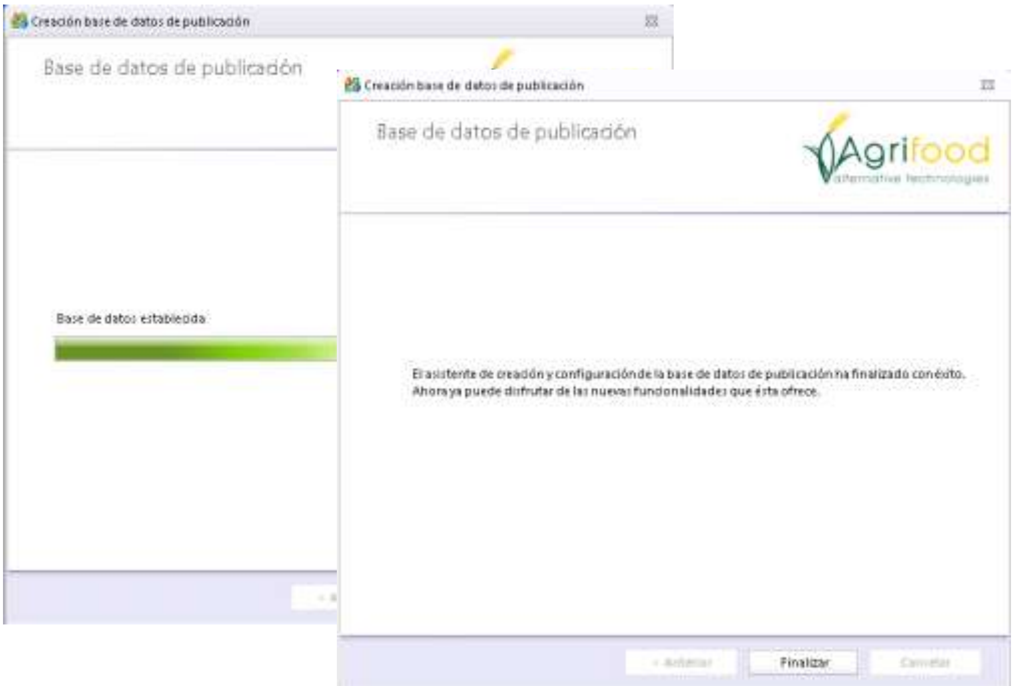


If the publication database doesn't exist, the program will create it. If the database exists or you want to configure it later, select **No**. Otherwise it press **Yes** and click on **Create** button, the assistant will start. Click on **Next**.

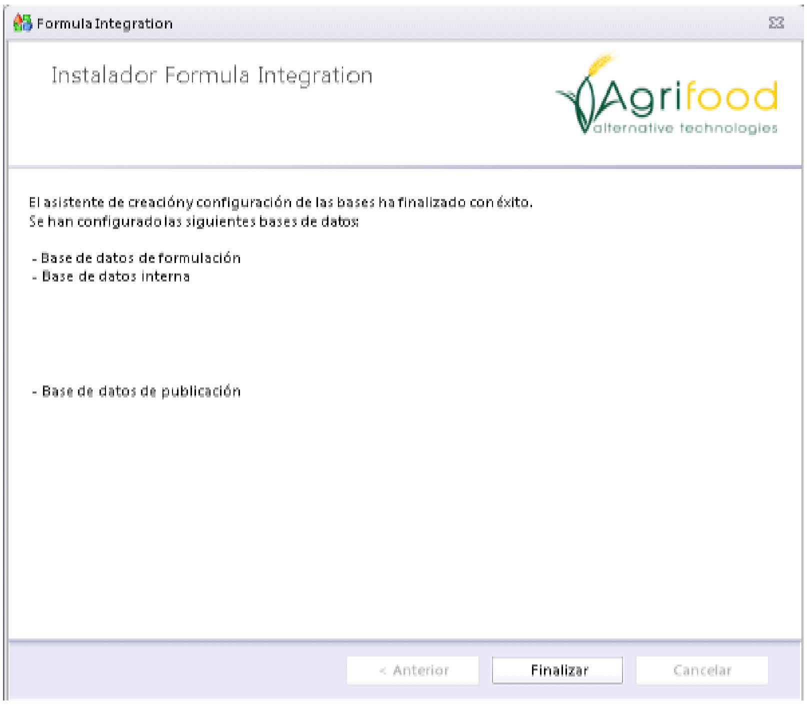


Type SQL server name and publication database name (e.g. BrillDatabaseName_PUB). Click **Next**.



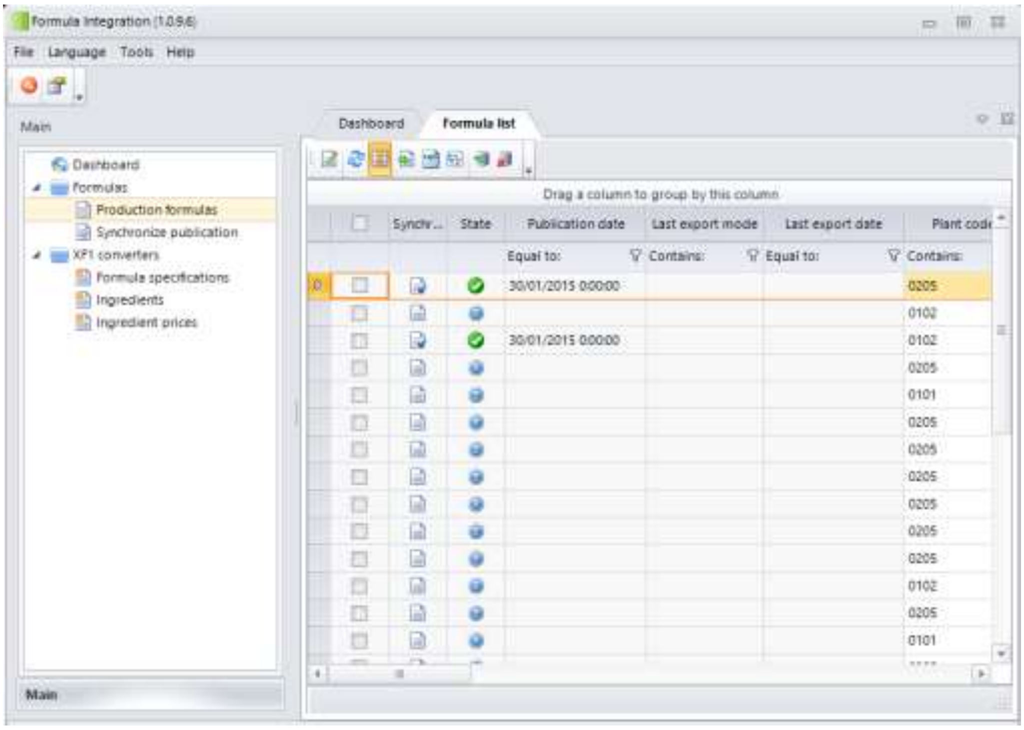


Press **Finish** to open a summary of the installation.


Formula Integration
Instalador Formula Integration
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El asistente de creacióny configuración de las bases ha finalizado con éxito.
Se han configurado las siguientes bases de datos:
- Base de datos de formulación
- Base de datos interna
- Base de datos de publicación
< Anterior
Finalizar
Cancelar

3. Start using Formula Integration

Starting the program shows the next screen:



It has a control panel at left side of the screen and the selected option will be showed at the right side. By default the program shows the Dashboard.

3.1. Dashboard

Shows a brief summary:

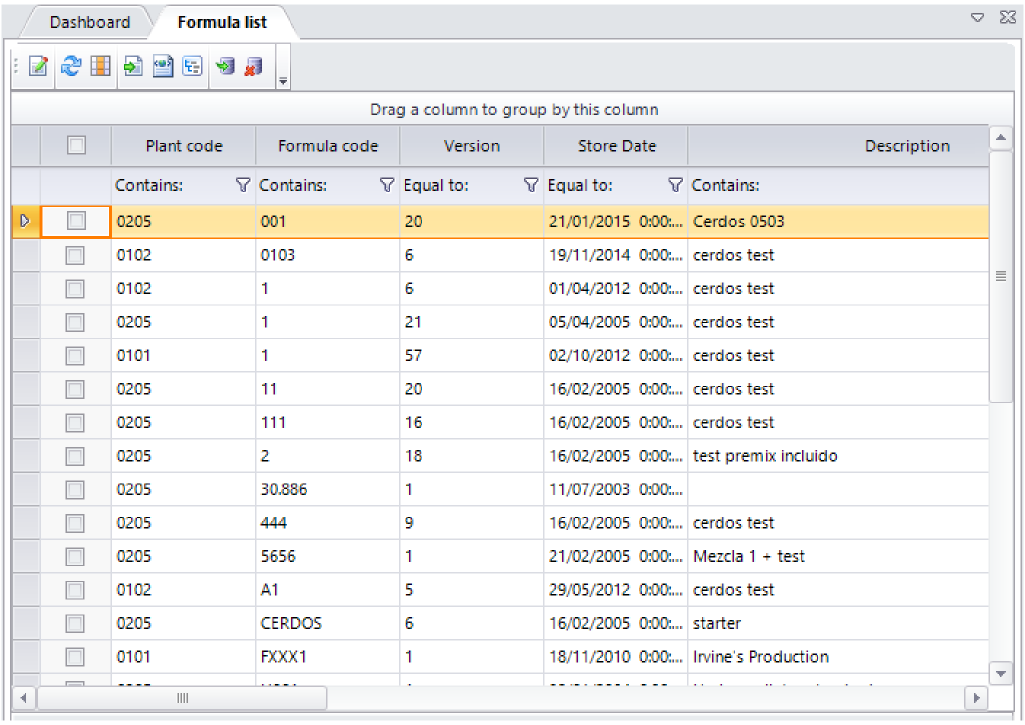
- **Production Formulas** : Number of formulas in production that contains the source database.
- **Published Formulas** : Number of formulas that have been transferred to the publication database.
- **Unsynchronized Formulas:** Number of published formulas but not updated from source database.
- **Last synchronization** : Date of last synchronization done of all formulas published.

3.2. Formulas

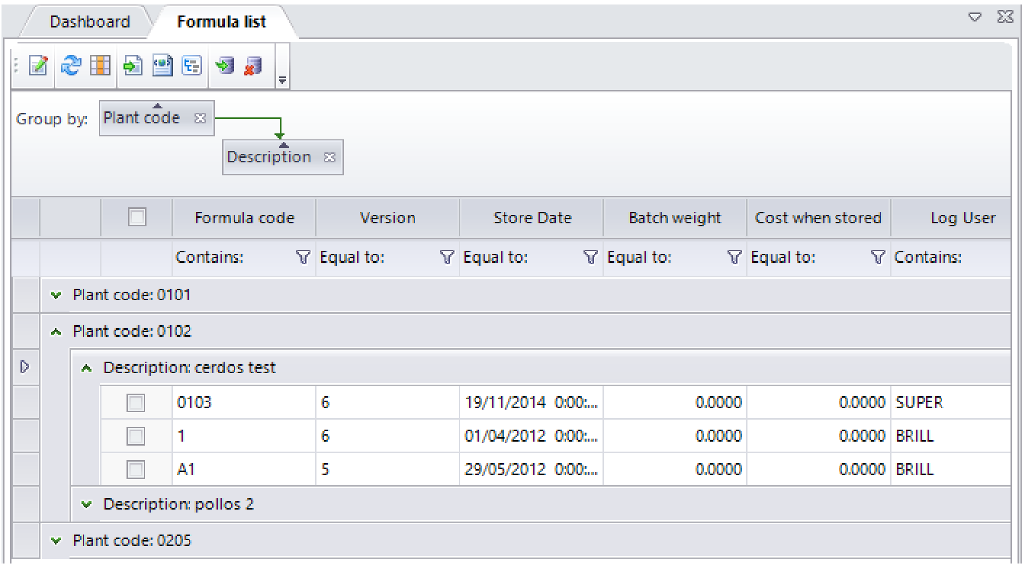
This space allows us to manage the formulas stored in the source and publication databases.

3.2.1. Production Formulas

The option Production formulas shows the list of formulas in production stored in the source database. It is the main window of the program because from here we can do most of the actions.



Versatile panel that allows you to group the list by any field you drag to the filtering zone. It is also possible to reorder the columns in the way you need.

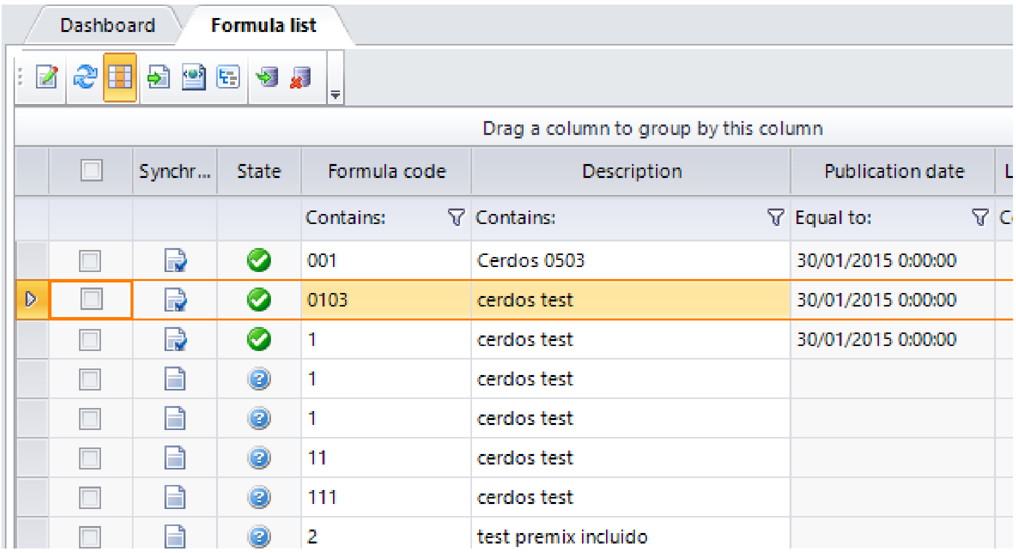


To do an action over a formula or a group of formulas mark the box and press the icon of the action to do.

Icon	Action	Description
	Show formula details	Shows the details of a remarked formula
	Show columns	Allows you to show or hide Operations, State, Publication date and Exportation columns
	Export using plug-in	Allows you to export formulas in a specific format using a custom-made exporter.
	Export to XML	Allows you to export the selected formulas in XML format
	Export to XF1	Allows you to export the selected formulas in XF1 format
	Transfer formulas	Allows you to transfer selected formulas to the publication database
	Delete formulas	Allows you to remove the selected formulas from the publications database
	Refresh the list of formulas	After doing any action you can refresh the list in order to see the last changes

The program uses next icons to indicate the state of a formula.

Icon	Description
	Formula marked for being transferred to the publication database
	Formula updated. It means that the last update of this formula is on the publication database.
	Formula outdated. It means that the last update of this formula is not on the publication database.

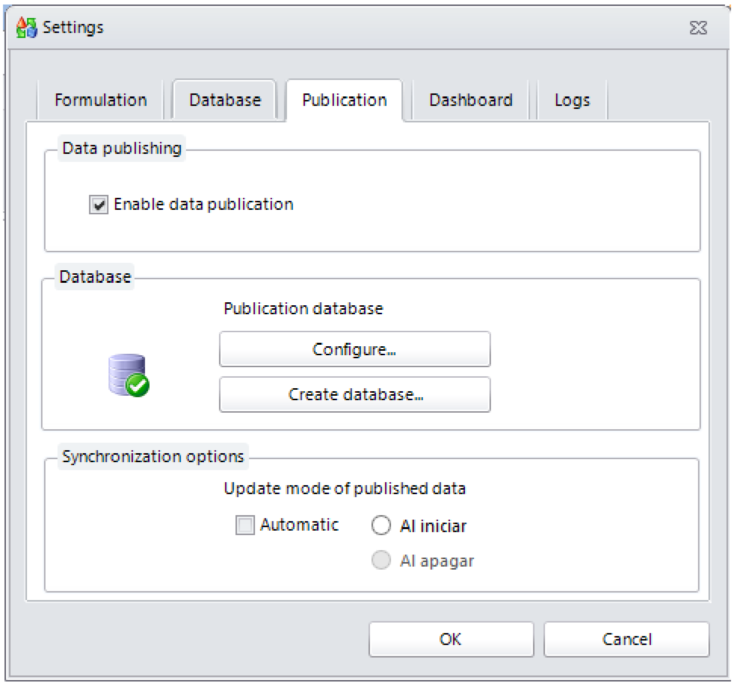


3.2.2. Synchronization

This options works over all the published formulas. You can synchronize all of them just doing a click over Synchronize Publication option in the left control panel.

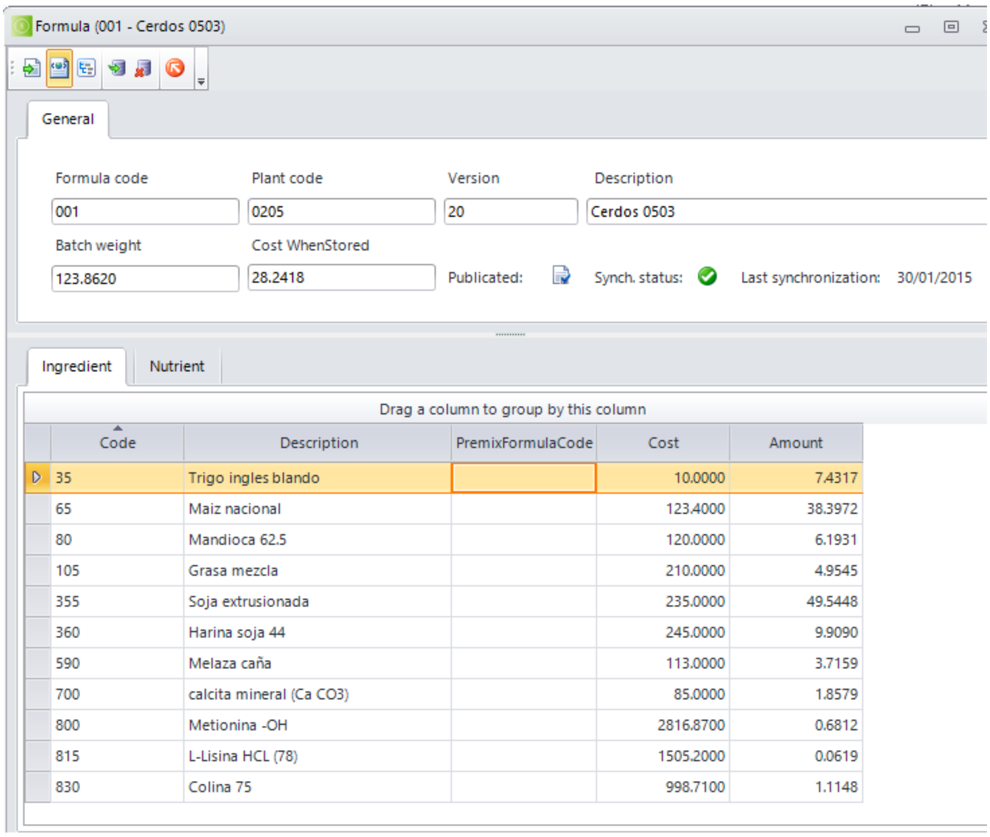
This task can be scheduled for doing automatically by configuring it on next window.

First time is necessary to able this option. Go to Tools →Options. Mark "Enable data publication".



3.2.3. Formula Detail

Shows the most important information about a formula and its compositions, i.e. the list of the ingredients and nutrients. You can see the detail of a formula by doing double click over a formula.



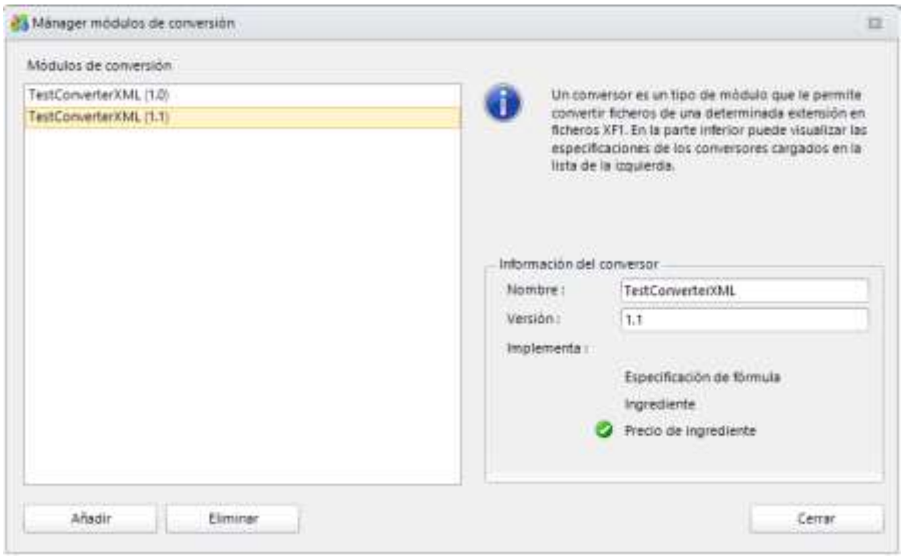
3.3. Plug-in to export or to convert

They are modules of the program that allow you to convert formulas in a specific format.

3.3.1. Converters

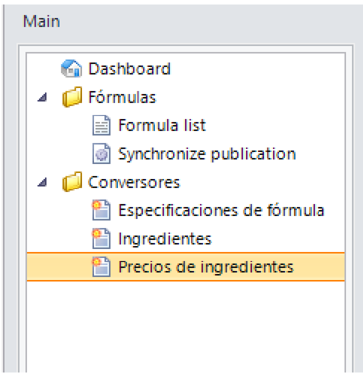
This module is useful to convert Formula specification, Ingredients or Ingredient prices from a format to XF1, the unique format you can use to import on Brill.It works with a customized converter developed from Agrifood.

To configure a conversor you must go to Tools → Manage conversors. Press ***Add*** button and select the converter given from Agrifood.



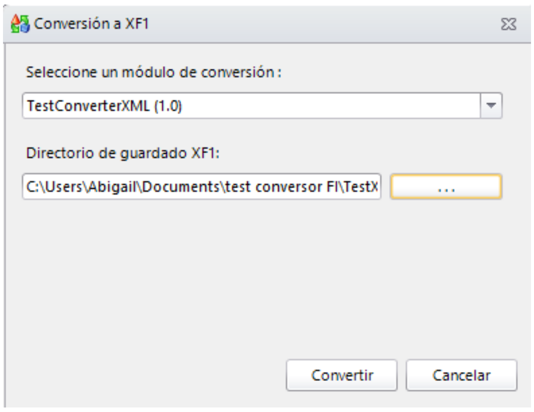
You can add different conversors or delete some of them.

To use the conversor go to the Main screen of the program and select the action to do.

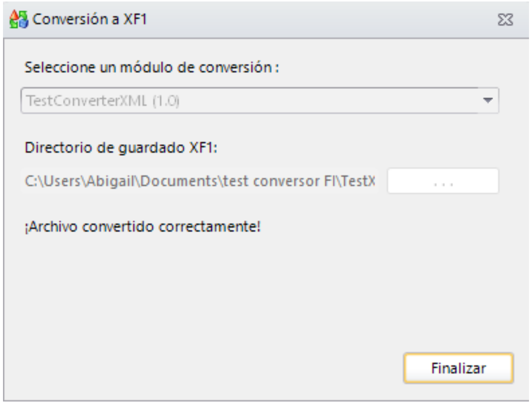


Next sample is about to convert the ingredient prices from a XML file to XF1.

Press click on ***"Ingredient prices"*** and select the converter you want to use, after that select the path of the XF1 file you want to save on. Press Convert button. Choose XML source file and press ***Open*** button.



The message tells if the conversion was done well.

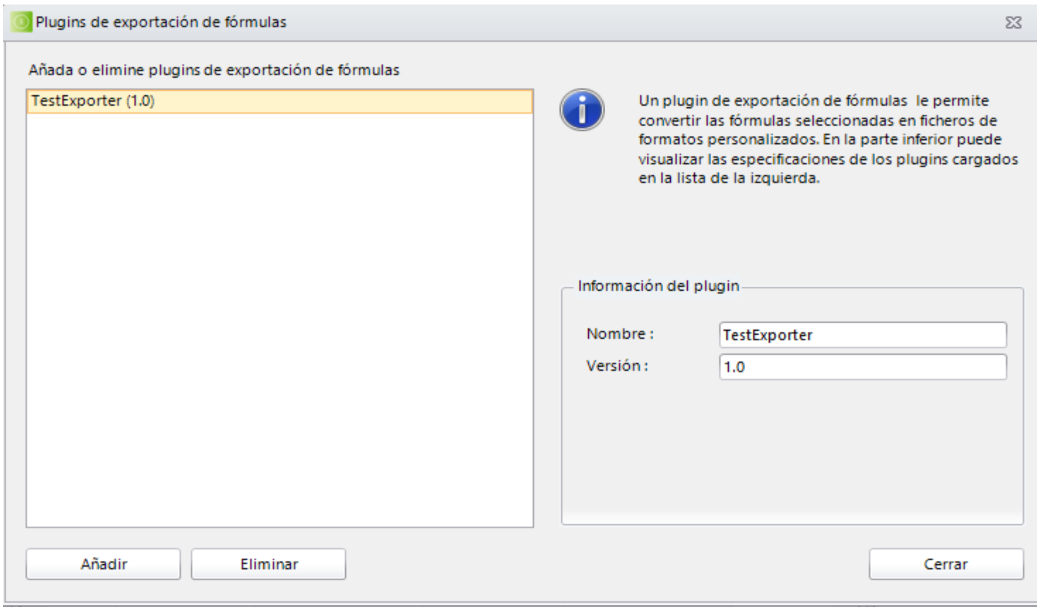


3.3.2. To Export formulas to others format

This module allows you to select one or more formulas from the Formulas in Production and export them to another format that the program have by default (XF1 and XML).

To configure it you must go to Tools → Formula export plugins. Press ***Add*** button and select the exporter given from Agrifood.

You can configure as many exporters as you need or delete some of then you will not need anymore.



When you have at least one exporter configured the Production formulas screen, the

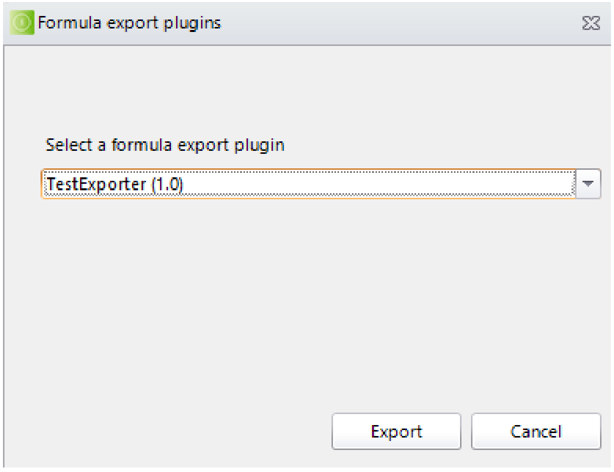
"Export using a plug-in" icon will be enabled .

To use the exporter go to "Production formulas" and select the formulas you want to export and press the icon .

The screen allows you to select one of the exporters you had configured before.

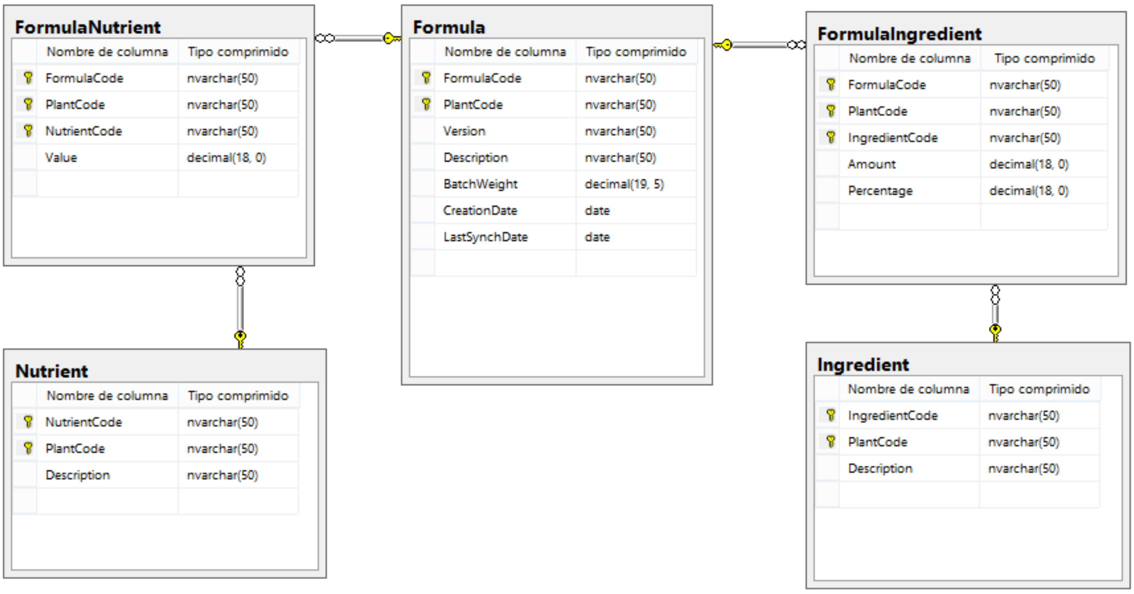
Press click on ***Export*** button and write the file name and the path where you want to store that, and press ***Save***.

It will show a message when the operation were finished.

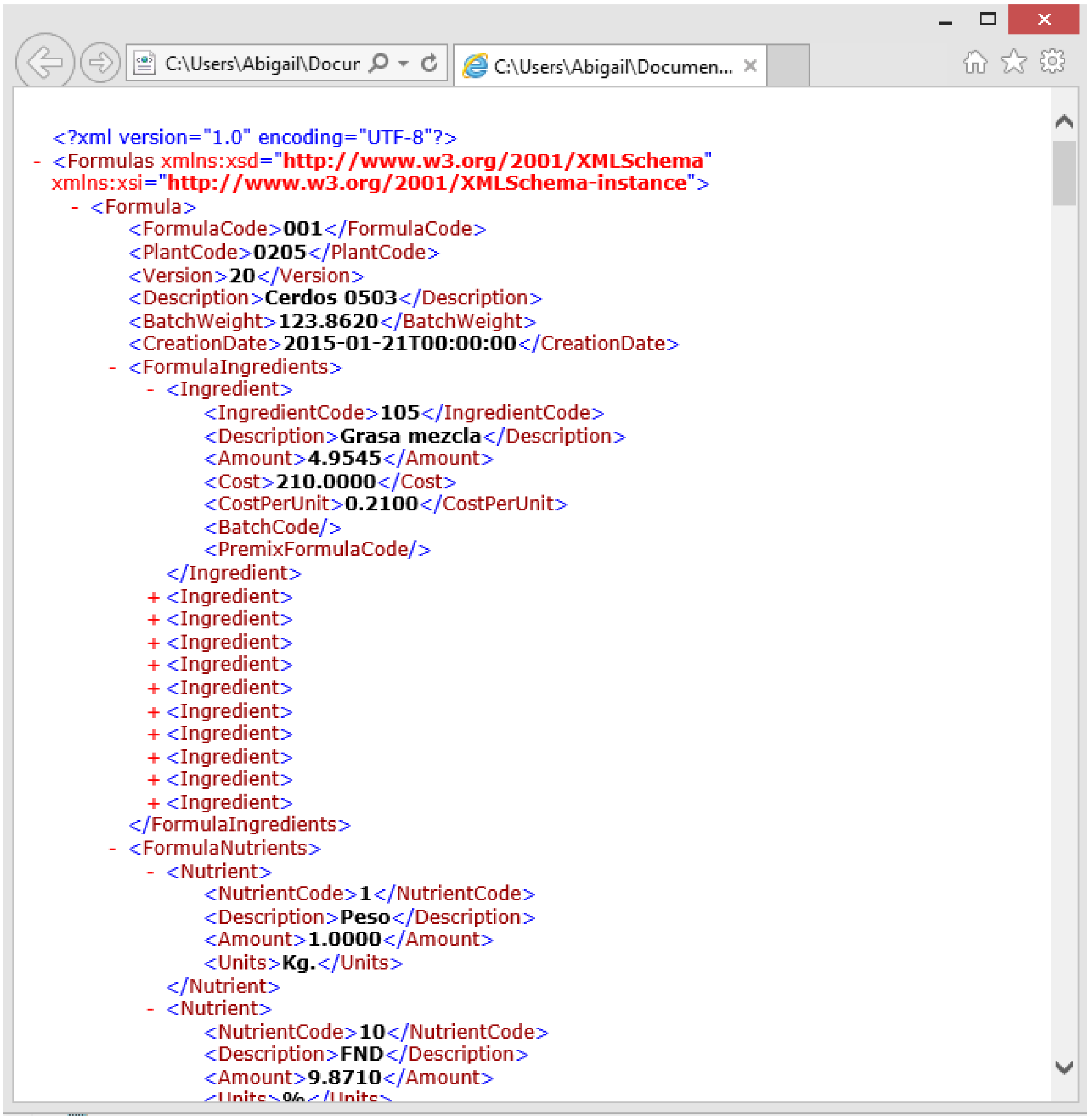


Appendix

A. Publication Database Structure



B. XML format of formula exported (sample)



```xml
<?xml version="1.0" encoding="UTF-8"?>
- <Formulas xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <Formula>
      <FormulaCode>001</FormulaCode>
      <PlantCode>0205</PlantCode>
      <Version>20</Version>
      <Description>Cerdos 0503</Description>
      <BatchWeight>123.8620</BatchWeight>
      <CreationDate>2015-01-21T00:00:00</CreationDate>
    - <FormulaIngredients>
      - <Ingredient>
          <IngredientCode>105</IngredientCode>
          <Description>Grasa mezcla</Description>
          <Amount>4.9545</Amount>
          <Cost>210.0000</Cost>
          <CostPerUnit>0.2100</CostPerUnit>
          <BatchCode/>
          <PremixFormulaCode/>
        </Ingredient>
      + <Ingredient>
      + <Ingredient>
      + <Ingredient>
      + <Ingredient>
      + <Ingredient>
      + <Ingredient>
      + <Ingredient>
      + <Ingredient>
      + <Ingredient>
      + <Ingredient>
      </FormulaIngredients>
    - <FormulaNutrients>
      - <Nutrient>
          <NutrientCode>1</NutrientCode>
          <Description>Peso</Description>
          <Amount>1.0000</Amount>
          <Units>Kg.</Units>
        </Nutrient>
      - <Nutrient>
          <NutrientCode>10</NutrientCode>
          <Description>FND</Description>
          <Amount>9.8710</Amount>
          <Units>%</Units>
```

C. XF1 format of formula exported (sample)

FormulasCerdos0503: Bloc de notas

Archivo Edición Formato Ver Ayuda

```
FS0205 001      Cerdos 0503                                 20150127      28.2418  123.86 1 0    0    0 11     00
FI      105       4.9545
FI       35       7.4317
FI      355      49.5448
FI      360       9.9090
FI      590       3.7159
FI       65      38.3972
FI      700       1.8579
FI       80       6.1931
FI      800       0.6812
FI      815       0.0619
FI      830       1.1148
FN  1       1.0000        Peso
FN 10       9.8710        FND
FN100       7.7500        Vitamina A aña.
FN101       0.6975        Vitamina D3 aña
FN105       0.5360        test1
FN107      21.4410        test3
FN 11       4.5890        FAD
FN115       0.6038        Met/Lis
FN116       0.4058        Ratio Met/Lis
FN 12       0.6150        LAD
FN120       3.7000        Test Cop
FN 13      26.5120        Almidon
FN 14       5.5250        Azucares
FN 16       0.0815        C14:0
FN 17       1.8835        C16:0
FN 18       0.1397        C16:1
FN 19       0.8819        C18:0
FN  2       4.7227        Humedad
FN 20       3.6356        C18:1
FN201       7.6076        test 201
FN 21       4.9768        C18:2
FN 22       0.6597        C18:3
FN 23       0.3576        C>20
```

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